IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

UNITED STATES OF AMERICA v. GONGDA XUE, Defendant.	CRIMINAL ACTION NO. 18-122

OPINION

Slomsky, J. **April 6, 2022**

I. INTRODUCTION

The charges in this case arise from an alleged conspiracy to steal trade secrets from GlaxoSmithKline, LLC ("GSK"), a global healthcare and pharmaceutical research company, to use for a newly-established corporation in China and for other purposes. On March 28, 2018, a grand jury in the Eastern District of Pennsylvania returned a twelve-count Indictment against Defendant Gongda Xue alone. (Doc. No. 1.) The Indictment includes the following charges: one count of conspiracy to commit wire fraud, in violation of 18 U.S.C. § 1349; one count of conspiracy to steal trade secrets, in violation of 18 U.S.C. § 1832(a)(5); five counts of wire fraud, in violation of 18 U.S.C. § 1343; and five counts of receiving stolen trade secrets, in violation of 18 U.S.C. § 1832(a)(3). (Doc. No. 1 at 1.)

Before the Court is Gongda Xue's Motion in Limine to exclude at trial the testimony of three proposed expert witnesses for the Government: (1) Dr. John Baldoni; (2) Dr. Joseph Villafranca; and (3) Dr. Chester Myers. (Doc. No. 101.) In the Motion, Defendant seeks to preclude their testimony under Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993), and Federal Rule of Evidence 702. (See id. at 1.) For reasons that follow, Dr. Baldoni, Dr.

Villafranca, and Dr. Myers will be permitted to testify as experts in this case. However, they will not be permitted to use the term "trade secret" in their testimony. Accordingly, Defendant's Motion in Limine (Doc. No. 101) will be granted in part and denied in part.

II. BACKGROUND

A. Factual Background

This criminal case involves Defendant Gongda Xue and four other co-conspirators, charged elsewhere, and their alleged participation in a conspiracy to steal biopharmaceutical trade secrets from GlaxoSmithKline LLC ("GSK"). When the actions alleged in the Indictment (Doc. No. 1) occurred, Defendant Gongda Xue was a research scientist at the Friedrich Mieschner Institute for Biomedical Research ("FMI") in Basel, Switzerland. (Doc. No. 1 at 5.) Gongda Xue is the brother of co-conspirator Yu Xue. (Id.) Yu Xue worked as a senior-level manager at GSK in Upper Merion, Pennsylvania. (Id. at 6.) Because of her position at GSK, Yu Xue had "access to a wide array of GSK trade secret and confidential information." (Id.) One particular trade secret that Yu Xue had access to was information about monoclonal antibodies, which are used to fight cancer and other diseases.[1] (Id. at 2.) This proprietary information was the result of considerable time, money, research, and development by GSK. (Id. at 2.) According to the Government, "GSK typically spent in excess of $1 billion to research and develop each biopharmaceutical product,"

[1] In the Indictment, the Government described monoclonal antibodies and their use further:

> One product under development [at GSK] was a monoclonal antibody ("mAB") designed to link to HER3 receptors on human body cells. In certain forms of cancer, HER3 receptors are "overexpressed," that is, human body cells contain too many of these receptors. This overexpression contributes to the development of cancer. The proposed antibody would bind with or otherwise impact the overexpressed HER3 receptor cells to eliminate the cancer, slow its development, or help to prevent the cancer from returning.

(Doc. No. 1 at 2.)

and any "research into possible pharmaceutical products, GSK's research data, GSK's research and development processes, and GSK's manufacturing processes are all trade secrets" belonged to GSK. (Id.)

As alleged in the Indictment, Yu Xue emailed biopharmaceutical trade secrets and confidential information, which belonged to GSK, to Defendant Gongda Xue in Switzerland. (Id. at 8.) In turn, Gongda Xue provided Yu Xue with confidential information from his research institute, FMI. (Id.) Defendant then, inter alia, performed tests with the GSK trade secrets and confidential information, as well as with antibody samples sent to him from China by other co-conspirators. (Id.) Subsequently, Defendant sent the results of his research to the co-conspirators in China to benefit a new corporation founded by Yu Xue, Renopharma, Inc. (Id. at 9–10.)

B. The Motion in Limine

On September 27, 2021, Defendant filed a Motion in Limine to Exclude Expert Testimony. (Doc. No. 101.) In the Motion, Defendant seeks to preclude or otherwise limit testimony at trial from three of the Government's proposed expert witnesses: (1) Dr. Joseph Villafranca; (2) Dr. Chester Meyers; and (3) Dr. John Baldoni. (Id. at 1.) Defendant asserts that the testimony "purport[s] to convey opinions on an ultimate issue in this case, including whether documents do or do not contain trade secrets." (Id.) Further, under Daubert, Defendant does not dispute that the proposed expert witnesses are qualified, but disputes "reliability" and "fit." (Doc. No. 101 at 5.)

On October 1, 2021, the Government filed a Response. (Doc. No. 103.) And on October 4, 2021, the Court held a hearing on pretrial motions, including the instant Motion in Limine. At the hearing, the Court requested supplemental briefing on Defendant's Motion in Limine concerning admissibility under Daubert. On October 12, 2021, Defendant submitted a Supplemental Memorandum in Support of the Motion in Limine. (Doc. No. 106.) The

Government filed a Response to the Supplemental Memorandum on October 18, 2021. (Doc. No. 107.)

The Motion is now fully briefed and ripe for disposition. Because the proposed expert testimony of Dr. Baldoni, Dr. Villafranca, and Dr. Myers are crucial to the outcome of this case, the Court will summarize the anticipated testimony of each in turn.

C. Proposed Testimony of Dr. John Baldoni

At the time of the actions alleged in the Indictment, Dr. John Baldoni was the Senior Vice President for Platform Design and Science at GSK. He has a Ph.D. in chemistry from Penn State University and has worked in the biopharmaceutical industry for more than 38 years. (Doc. No. 103 at 3.) According to the Government, "[h]e is one of the most knowledgeable people in the world on how to develop monoclonal antibodies." (Id.) Dr. Baldoni previously testified before the federal grand jury that indicted Defendant Gongda Xue. (Id.) Further, he was among a team of scientists at GSK that reviewed the information that allegedly had been stolen by Gongda Xue and the other co-conspirators after the criminal actions of the co-conspirators alleged in the Indictment was uncovered. (Id. at 2–3.)

Although the Government plans to call Dr. Baldoni "primarily as a fact witness, [] there may be instances where he may testify in the form of an opinion." (Doc. No. 103 at 3.) The Government anticipates that Dr. Baldoni will testify as follows:

> The government anticipates that Dr. Baldoni will testify, as he testified previously, that the stolen documents, including the documents received by Gongda Xue, contained confidential and trade secret information belonging to GSK. He will describe that GSK invested a considerable amount of time, effort, and money to develop the intellectual property found in these documents. Dr. Baldoni will testify that Yu Xue did not have permission to steal the GSK documents. Dr. Baldoni will note that Yu Xue signed an agreement with GSK not to disclose GSK information without permission, which is standard practice in the industry. Dr. Baldoni will testify that Yu Xue received extensive training on her confidentiality obligations. Dr. Baldoni will testify that GSK would never give permission to share documents

> of this nature to a person working for a competing organization or entity, such as Gongda Xue's employer, Friedrich Miescher Institute for Biomedical Research ("FMI"), or Gongda Xue's prospective employer, Novartis. Dr. Baldoni will testify to the steps GSK took to protect its intellectual property. Regarding the specific documents which Yu Xue sent to Gongda Xue, Dr. Baldoni will testify that these documents were often used at GSK to train new scientists and provided a general overview of how GSK develops and manufactures monoclonal antibodies. He will testify that these documents contained both trade secret and confidential information. Furthermore, he will testify that GSK is injured anytime it loses control over its intellectual property, including the manner in which it occurred in this case.

(Id. at 4.)

D. Proposed Testimony of Dr. Joseph Villafranca

The second witness discussed in Defendant's Motion in Limine is Dr. Joseph Villafranca. Dr. Villafranca is a former Vice President of another large pharmaceutical company, Bristol Myers Squibb. (Doc. No. 103 at 4.) Dr. Villafranca has a Ph.D. in biochemistry from Purdue University. Also, he served as the Executive Vice President at Neose Technologies, a smaller biopharmaceutical company in Horsham, Pennsylvania. (Id.) Dr. Villafranca has spent over 45 years in the biopharmaceutical industry and taught biochemistry and molecular biology at Princeton University and Penn State University. (Id.)

Given his experience, the Government argues that "Dr. Villafranca is well[-]positioned to educate the jury on the biopharmaceutical industry and how the information which was stolen in this case would benefit Gongda Xue and injure GSK." (Id. at 4.) The Government anticipates that Dr. Villafranca will testify as follows:

> The government anticipates that Dr. Villafranca will testify consistently with his testimony at the prior valuation hearing for Gongda Xue's co-conspirators. Dr. Villafranca will explain what monoclonal antibodies are and how they are developed. He will explain the differences between how large biopharmaceutical companies research and develop monoclonal antibodies as opposed to how small biopharmaceutical companies operate. He will explain how the documents which Yu Xue sent to Gongda Xue would benefit Gongda Xue in (a) applying for a job at Novartis and (b) creating his own biopharmaceutical company. Furthermore, he

> will explain how a company like GSK is injured when it loses control of its intellectual property, including the manner in which it occurred in this case.

(Id. at 4.)

E. Proposed Testimony of Dr. Chester Myers

The third proposed witness discussed in the instant Motion is Dr. Chester Myers. Dr. Myers worked as a protein scientist for over 35 years at companies such as Bristol-Myers Squibb, Neose Technologies, and SmithKline & French, which is "the predecessor company to GSK[]." (Doc. No. 103 at 5.) Additionally, he has worked as a consultant for biopharmaceutical companies of differing sizes. (Id.) He holds a Ph.D. in Biomedical Sciences from the City University of New York. (Id.) The Government anticipates that Dr. Myers will testify in the following manner:

> While Dr. Villafranca will testify to the big picture, the government's fourth witness, Dr. Chester Meyers, will testify to the small details—in particular the specific trade secrets found in the documents sent from Yu Xue to Gongda Xue. Dr. Villafranca will testify that these documents contained trade secrets generally, in contrast, Dr. Meyers will testify to the details. Dr. Meyers authored several reports, which have been provided to defense counsel, which describe the trade secrets contained in the stolen documents in great detail and his reasons for characterizing them as such. Dr. Meyers will summarize these reports for the jury at trial.

(Id.)

III. STANDARD OF REVIEW

A. The Daubert Standard on the Admissibility of Expert Witness Testimony

Federal Rule of Evidence 702 governs the admissibility of expert testimony. See FED. R. EVID. 702. Rule 702 provides:

> A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:
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> > (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
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> > (b) the testimony is based on sufficient facts or data;

> (c) the testimony is the product of reliable principles and methods; and
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> (d) the expert has reliably applied the principles and methods to the facts of the case.

Id.

In Daubert v. Merrell Dow Pharmaceuticals, Inc., the United States Supreme Court provided the analytical framework to determine the admissibility of expert testimony under Federal Rule of Evidence 702. 509 U.S. 579 (1993). Daubert held that Rule 702 imposes a "gatekeeping" obligation on the trial court to "ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable." Id. at 598. Also under Rule 702, the United States Court of Appeals for the Third Circuit has held that it "has three major requirements: (1) the proffered witness must be an expert, i.e., must be qualified; (2) the expert must testify about matters requiring scientific, technical or specialized knowledge; and (3) the expert's testimony must assist the trier of fact." Pineda v. Ford Motor Co., 520 F.3d 237, 244 (3d Cir. 2008). These requirements are also referred to as "qualification, reliability and fit." Estate of Schneider v. Fried, 320 F.3d 396, 404 (3d Cir. 2003).

1. Qualification

First, the Third Circuit has "interpreted Rule 702's qualification requirement liberally." Pineda, 520 F.3d at 244 (citing Schneider, 320 F.3d at 404; In re Paoli R.R. Yard PCB Litig., 35 F.3d 717, 741 (3d Cir. 1994)). Accordingly, a "broad range of knowledge, skills, and training qualify an expert." Paoli, 35 F.3d at 741. Because both the "substantive" and "formal" qualifications of an expert are viewed liberally, the Third Circuit has "eschewed imposing overly rigorous requirements of expertise and [has] been satisfied with more generalized qualifications." Id. Thus, "it is an abuse of discretion to exclude testimony simply because the trial court does not deem the proposed expert to be the best qualified or because the proposed

expert does not have specialization that the court considers most appropriate." Pineda, 520 F.3d at 244 (quoting Holbrook v. Lykes Bros. S.S. Co., 80 F.3d 777, 782 (3d Cir. 1996)).

2. Reliability

Turning to the "reliability" requirement, the Third Circuit has interpreted reliability "to mean that an expert's testimony is admissible so long as the process or technique the expert used in formulating the opinion is reliable." Pineda, 520 F.3d at 244 (internal quotations omitted) (quoting Paoli, 35 F.3d at 742). Notably, "[t]he evidentiary requirement of reliability is lower than the merits standard of correctness." Id. at 744. Admissibility turns "on the expert's methods and reasoning; credibility decisions arise after admissibility has been determined." Kannankeril v. Terminix Intern., Inc., 128 F.3d 802, 806 (3d Cir. 1997). When examining expert testimony that is based on practical experience, rather than academic theories, "the Daubert factors (peer review, publication, potential error rate, etc.) simply are not applicable" because the reliability of testimony from a practical experience expert "depends heavily on the knowledge and experience of the expert, rather than the methodology or theory behind it." States v. Fernwood Hotel and Resort, No. 12-906, 2014 WL 198568, at *3 (M.D. Pa. Jan. 15, 2014) (quoting United States v. Hankey, 203 F.3d 1160, 1169 (9th Cir. 2000)).

3. Fit

To satisfy the "fit" requirement, "the expert's testimony must be relevant for the purposes of the case and must assist the trier of fact." Schneider, 320 F.3d at 404. For expert testimony to meet the Daubert "fit" requirement, it must "assist the trier of fact to understand the evidence or to determine a fact in issue." FED. R. EVID. 702. "This condition goes primarily to relevance. Expert testimony which does not relate to any issue in the case is not relevant and, ergo, non-

helpful." Daubert, 509 U.S. at 591 (internal quotations omitted) (citing United States v. Downing, 753 F.2d 1224, 1242 (3d Cir. 1985)).

B. Admissibility of Ultimate Issue Testimony

Federal Rule of Evidence 704(a) allows the expert to testify to the "ultimate issue" in the case. Rule 704(a) provides:

> (a) In General—Not Automatically Objectionable. An opinion is not objectionable just because it embraces an ultimate issue.

FED. R. EVID. 704(a). "Although Federal Rule of Evidence 704 permits an expert witness to give expert testimony that 'embraces an ultimate issue to be decided by the trier of fact,' an expert witness is prohibited from rendering a legal opinion." Berckeley Inv. Grp., Ltd. v. Colkitt, 455 F.3d 195, 217 (3d Cir. 2006). The reason for this prohibition is because it is the role of the trial judge to explain the law to the jury. First Nat. State Bank of New Jersey v. Reliance Elec. Co., 668 F.2d 725, 731 (3d Cir. 1981) (affirming trial court decision allowing expert witness to testify as to banking customs "to assist the trier of fact with bank and industry practices" but prohibiting expert from giving opinion "as to the legal duties arising therefrom").

IV. ANALYSIS

In the instant Motion and Supplemental Brief in Support, Defendant contends that the expert testimony of Dr. Baldoni, Dr. Villafranca, and Dr. Myers should be barred because the second and third prongs of the Third Circuit's test pursuant to Rule 702 and Daubert are not met. In addition, Defendant asserts that experts should not be permitted to render an opinion that certain information is a "trade secret" because it would amount to impermissible testimony regarding the applicable law in this case. (See Doc. No. 10.) Further, Defendant requests a Daubert hearing. The Court will address each issue seriatim.

A. Drs. Baldoni, Villafranca, and Myers are qualified to testify as expert witnesses.

First, the three proposed witnesses relevant to Defendant's Motion are qualified experts under the Third Circuit's standard, satisfying the first prong: "qualification." See Pineda, 520 F.3d at 244. It should be noted that, here, Defendant does not dispute that the qualification prong is satisfied. In Defendant's Motion in Limine, he clarifies that he "does not challenge the experts' qualifications, but does object to the reliability and admissibility of their opinions." (Doc. No. 101 at 5.) Nevertheless, the Court will assess whether they are qualified to testify under the Rule 702 standard set forth above.

The Third Circuit has consistently emphasized a liberal policy of admissibility under Rule 702, which extends to the formal qualification of experts. See Paoli II, 35 F.3d at 741; see also Pineda, 520 F.3d at 243. In addition, the Third Circuit has "eschewed imposing overly rigorous requirements of expertise and [has] been satisfied with more generalized qualifications." Paoli II, 35 F.3d at 741. In Hammond v. International Harvester Co., 691 F.2d 646 (3d Cir. 1982), the Third Circuit found that an automobile and agricultural equipment salesperson was qualified to testify as an expert in a case involving a tractor because "[p]ractical experience as well as academic training and credentials may be the basis of qualification (as an expert witness)." Id. at 653 (quoting Moran v. Ford Motor Co., 476 F.2d 289, 291 (8th Cir. 1973) (internal quotation omitted)); see also Lauria v. Nat'l R.R. Passenger Corp., 145 F.3d 593, 599 (3d Cir. 1998) (foreman's years of experience with railroad track equipment, maintenance, and safety qualified him to testify as an expert on Amtrak's duty to maintain railroad track).

Here, all three proposed witnesses are qualified as experts in the biopharmaceutical industry, as they each have served as executives at biopharmaceutical companies, had over 30 years of experience in the industry, are educated on the subject matter in this case, hold Ph.D.

degrees in chemistry, biochemistry, and biomedical sciences, respectively, and learned confidentiality practices at pharmaceutical companies due to their experiences at similar companies such as GSK, Bristol-Myers Squibb, and Neose Technologies. (Doc. No. 103 at 3–5; see also Doc. No. 103-1, 103-2.) Their experience and qualifications in the biopharmaceutical industry make Drs. Baldoni, Villafranca, and Myers qualified to give expert opinions in this case, including whether certain information shared between Defendant and the other co-conspirators was confidential information or was information belonging to GSK that was to be kept secret.

B. The proposed testimony is reliable, as it is based on practical experience in the biopharmaceutical industry.

Second, the Court must assess whether the proposed expert testimony is reliable. As noted supra, the Third Circuit has interpreted reliability "to mean that an expert's testimony is admissible so long as the process or technique the expert used in formulating the opinion is reliable." Pineda, 520 F.3d at 244 (internal quotations omitted) (quoting Paoli, 35 F.3d at 742). Notably, "[t]he evidentiary requirement of reliability is lower than the merits standard of correctness." Id. at 744. Admissibility turns "on the expert's methods and reasoning; credibility decisions arise after admissibility has been determined." Kannankeril, 128 F.3d at 806.

Here, Defendant Gongda Xue asserts that the proposed experts are not reliable because their opinions on customs and procedures dealing with confidentiality at biopharmaceutical companies are not based on "methods and procedures of science," and are instead based on "subjective belief or unsupported speculation" without "good grounds" for their opinions. (Doc. No. 101 at 6 (citing Paoli, 35 F.3d 717, 741 (3d Cir. 1994)).) Thus, Defendant asserts that the proposed testimony is not reliable because it does not satisfy the "good grounds" factors set forth in Daubert and Paoli regarding a testable hypothesis, peer review, publication, potential error rate. (Doc. No. 101 at 6.) Defendant then compares those factors to the proposed testimonies of Drs.

Baldoni, Villafranca, and Myers, and argues that the Government has not shown that their anticipated opinions are based upon a reliable methodology. (Id. at 7.)

As this Court has noted in a recent opinion regarding the "good grounds" factors and their relation to the reliability determination under Daubert, the factors described by the defense and sourced from Daubert and Paoli are not applicable in every case:

> It is well established, however, that these factors "are neither exhaustive nor applicable in every case." Kannankeril, 128 F.3d at 806-07. The Daubert Court "made clear that its list of factors was meant to be helpful, not definitive." Kumho Tire Co., Ltd. v. Carmichael, 526 U.S. 137, 151 (1999). And when examining expert testimony that is based on practical experience, rather than academic theories, "the Daubert factors (peer review, publication, potential error rate, etc.) simply are not applicable" because the reliability of testimony from a practical experience expert "depends heavily on the knowledge and experience of the expert, rather than the methodology or theory behind it." Fernwood Hotel and Resort, 2014 WL 198568, at *3 (quoting Hankey, 203 F.3d at 1169).

Christoforetti v. Bally's Park Place, Inc., No. CV 12-4687, 2021 WL 3879074, at *6 (D.N.J. Aug. 31, 2021). The same reasons compel the Court to reject Defendant's arguments on reliability here.

In this case, Drs. Baldoni, Villafranca, and Myers are expected to render opinions about proprietary information in the biopharmaceutical industry, as well as customs and practices for protecting information characterized as confidential. All three of the Government's witnesses have been executives at biopharmaceutical companies such as GSK and have several decades of experience in the industry. (Doc. No. 103 at 11.) From this practical experience, all three "understand the importance of intellectual property" in the industry, as well as "what types of information companies use to derive independent economic value," and protect their information. (Id. at 11.)

Furthermore, it is clear from the proposed testimony, as well as the former testimony of Drs. Villafranca and Myers at a valuation hearing on "loss" under the Federal Sentencing Guidelines regarding Defendant's co-conspirators, that the experts are familiar with the facts of

the case and will be able to testify reliably whether the documents at issue contain information that is commonly known in the scientific community, or whether such information is proprietary and belonging to GSK. See United States v. Yu Xue, No. 16-22, 2020 WL 5645765, at *4 (E.D. Pa. Sept. 22, 2020). Although Dr. Baldoni has not testified before the Court previously, because he is a former executive at GSK, his testimony will be reliable as to the types of information that are regarded as proprietary in the industry and at the company. As noted by the Government, "part of Dr. Baldoni's duties at GSK was to understand what was considered by GSK to be a trade secret, and what could and could not be revealed in a public document, such as a patent application."[2] (Doc. No. 107 at 6.) Thus, much of his testimony will be as a fact witness, as it is based upon his personal knowledge. (See id.)

In Defendant's Motion in Limine and Supplemental Memorandum in Support (Doc. Nos. 101, 106), tremendous attention is placed on the fact that this case is of a scientific nature. (See Doc. No. 101 at 6–9.) Along this vein, Defendant suggests that the proposed testimony of Drs. Baldoni, Villafranca, and Myers is unreliable because the experts have failed to base their opinions, characterized by Plaintiff as "scientific conclusions," upon a certain methodology. (Doc. No. 106 at 10.) This attention on scientific methodology as a prerequisite to reliability, however, is misplaced in this case.

Instead, here, the experts will be testifying based upon their practical experiences in the industry. (See Doc. No. 103 at 3–5.) The experts will assist the jury in understanding what types of information is kept confidential, how this information is stored, what measures are taken to protect this information, the value of such information, and why the information is valuable. (See

[2] As noted above and discussed infra, Dr. Baldoni will not be permitted to give his opinion that information in a GSK document is a "trade secret."

id.) This testimony is based on practical experience in the industry, rather than based on a particular scientific test, such as a DNA test. As noted by the Government, the experts would be "merely assisting the jury to understand how a particular piece of information fits th[e] definition" of proprietary information within the pharmaceutical industry, rather than giving an opinion based on the performance of a scientific test. (Id. at 11.) This practical experience, paired with the experts' careful review of the evidence in this case, meets the reliability prong under Rule 702. Further, the qualification of Drs. Baldoni, Villafranca, and Myers as experts in the biopharmaceutical industry, which Defendant notably does not dispute, supports the reliability of their opinions as experts in this field and in this case. (Doc. No. 101 at 5 ("Defendant does not challenge the experts' qualifications . . . ").)

Therefore, the fact that the proposed expert testimony is not based on a testable theory or methodology subject to peer review does not preclude it from satisfying the second prong of the Third Circuit's test: "reliability." This notwithstanding, as the Court will explain infra, the expert witnesses will not be permitted to use the term "trade secret" when testifying. Because the proposed testimony of the Government's experts is reliable, the Court will proceed to the third prong: "fit."

C. The proposed testimony is "fit" to assist the trier of fact.

Defendant further argues that the proffered expert testimony does not "fit" the facts of this case. (Doc. No. 101 at 9.) The Government counters this argument by noting that the proposed testimony of Drs. Baldoni, Villafranca, and Meyers will be helpful to the jury and assist their understanding of whether certain information is confidential and proprietary in the industry, or alternatively, is information that is widely available to the scientific community. (See Doc. No. 107 at 6.)

To satisfy the "fit" requirement, "the expert's testimony must be relevant for the purposes of the case and must assist the trier of fact." Schneider, 320 F.3d at 404. As the Court has noted above, all three proposed witnesses are qualified as experts in the biopharmaceutical industry. Further, their practical experience working as executives for GSK or similar companies provides a reliable basis for them to testify whether the information shared between Gongda Xue and the co-conspirators was confidential in the industry. Biopharmaceutical secrets are precisely what the case against Defendant is about. Thus, the proposed testimony is fit to assist the trier of fact in this case.

Most importantly, when viewing the evidence and documents at issue in this case, the average juror before trial will not know, for example, "whether [information] is something out of a textbook which any doctoral student would know (and subsequently not a trade secret) or whether that procedure is a proprietary GSK trade secret (and not known to the scientific community)." (Doc. No. 107 at 6.) The Court agrees with the Government: "The jury cannot possibly be expected to know such a fact." (Id.) Because this inquiry is central to the charges brought against Defendant Gongda Xue, the testimony of the three proposed experts will greatly assist the finder of fact and "fit," satisfying the final prong of the Third Circuit's test.

Thus, based upon the foregoing, the Court will admit the proposed testimony of Dr. Baldoni, Dr. Villafranca, and Dr. Myers as expert witnesses in this case because it is admissible under Daubert and Rule 702. All three experts will be subject to cross-examination by Defendant. In addition, the arguments in Defendant's Motion and Supplemental Memorandum regarding "reliability" and "fit" go to the weight of the experts' testimony, rather than to its admissibility.

D. A Daubert hearing is not necessary on Defendant's Motion.

A court is not required to hold a Daubert hearing, even if it is requested, if the record allows the court to rule on admissibility. "Courts have discretion to grant or deny such requests [for a Daubert hearing]." Marcum v. Columbia Gas Transmission, LLC, 549 F. Supp. 3d 408, 418 n.3 (E.D. Pa. 2021) (citation omitted). As the Third Circuit has noted, "[a]n in limine hearing will obviously not be required whenever a Daubert objection is raised to a proffer of expert evidence. Whether to hold one rests in the sound discretion of the district court." Padillas v. Stork-Gamco, Inc., 186 F.3d 412, 418 (3d Cir. 1999). A hearing is especially not necessary where a court "already ha[s] before it the depositions and affidavits of the [proposed] experts." Oddi v. Ford Motor Co., 234 F.3d 136, 154 (3d Cir. 2000).

At the evidentiary hearing on loss valuation held on April 30, 2019 and May, 1, 2019, Drs. Villafranca and Myers testified before this Court as Government witnesses against Defendant's co-conspirators. See United States v. Yu Xue, No. 16-22, 2020 WL 5645765, at *4 (E.D. Pa. Sept. 22, 2020) (summarizing testimonies of each Government witness). Their experience, qualifications, and expected testimony are known to the Court both through their previous testimony, as well as the extensive briefing regarding their proposed testimony by Defendant and the Government in this case. Both witnesses are familiar with the pertinent facts. Further, even though Dr. Baldoni has not previously testified in this case, he testified before the grand jury regarding Defendant Gongda Xue, and his expected testimony has been thoroughly briefed by both Defendant and the Government. Additionally, the Government has provided Defendant in discovery four reports authored by Dr. Myers, as well as FBI interview reports with Dr. Baldoni and other scientists at GSK about the documents at issue in this case. (Doc. No. 107 at 2.)

As demonstrated above, the record in this case is sufficient regarding the proposed testimony of Dr. Baldoni, Dr. Villafranca, and Dr. Myers to allow the Court to rule on the Motion in Limine (Doc. No. 101). Therefore, Defendant's request for a Daubert hearing will be denied.

E. Expert witnesses may not use the term "trade secret" when testifying at trial.

In his Motion, Defendant also objects to the proposed testimony of Drs. Baldoni, Villafranca, and Myers that certain GSK information in this case is a "trade secret." He submits that such testimony is impermissible as "ultimate issue" testimony and amounts to an instruction on the law. (Doc. Nos. 101 at 2–5, 106 at 2–4.) In response, the Government argues that the testimony regarding "trade secrets" is permissible for two reasons: first, experts may provide testimony that embraces the "ultimate issue" under Federal Rule of Evidence 704; and second, the experts would not touch upon the legal definition of a "trade secret" and would solely use the term "trade secret" as it is understood in the biopharmaceutical industry. (Doc. Nos. 103 at 7–11, 107 at 3–7.)

May these expert witnesses use the term "trade secret" when testifying at trial to refer to the proprietary GSK information in this case? As set forth below, the Court concludes that they may not. The offenses relevant to this issue are in Count Two, which charges Defendant with conspiracy to steal trade secrets in violation of 18 U.S.C. § 1832(a)(5), and in Counts Eight to Twelve, which charge Defendant with receiving stolen trade secrets, in violation of 18 U.S.C. § 1832(a)(3).[3]

[3] Section 1832(a) states in relevant part:

> (a) Whoever, with intent to convert a trade secret, that is related to a product or service used in or intended for use in interstate or foreign commerce, to the economic benefit of anyone other than the owner thereof, and intending or

One of the "ultimate issues" in this case is whether the alleged misappropriated information falls within the statutory definition of "trade secret." Under federal law, the theft of trade secrets is prohibited under 18 U.S.C. § 1832(a). However, the statutory definition of "trade secret" as it is used in § 1832(a) is set forth in a different statute: 18 U.S.C. § 1839. To find that information constitutes a "trade secret" under § 1839, the jury must find that:

> (A) the owner thereof has taken reasonable measures to keep such information secret; and
>
> (B) the information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable through proper means by, another person who can obtain economic value from the disclosure or use of the information[.]

18 U.S.C. § 1839 (3)(A)–(B).

As noted supra, expert witnesses may provide testimony that embraces an ultimate issue pursuant to Federal Rule of Evidence 704(a). Nevertheless, when providing such testimony, "an

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> knowing that the offense will, injure any owner of that trade secret, knowingly—
>
> (1) steals, or without authorization appropriates, takes, carries away, or conceals, or by fraud, artifice, or deception obtains such information;
>
> . . . .
>
> (3) receives, buys, or possesses such information, knowing the same to have been stolen or appropriated, obtained, or converted without authorization; [or]
>
> . . . .
>
> (5) conspires with one or more other persons to commit any offense described in paragraphs (1) through (3), and one or more of such persons do any act to effect the object of the conspiracy,
>
> shall, except as provided in subsection (b), be fined under this title or imprisoned not more than 10 years, or both.

18 U.S.C. § 1832.

expert witness is prohibited from rendering a legal opinion." Berckeley Inv. Grp., Ltd. v. Colkitt, 455 F.3d 195, 217 (3d Cir. 2006). When a case involves customs or practices of a particular industry, "the line between admissible and inadmissible expert testimony as to the customs and practices of a particular industry often becomes blurred when the testimony concerns a party's compliance with customs and practices that implicate legal duties." Id. at 218.

In his Motion, Defendant opposes the use of the term "trade secret" by the witnesses to refer to confidential information, arguing that this is a legal conclusion.[4] (Doc. No. 101 at 3–5.) The United States Court of Appeals for the Third Circuit has not ruled on the issue of whether an expert witness may testify using the term "trade secret," in either a civil or criminal case. Nevertheless, the Third Circuit has held that courts commonly exclude "legal terms of art" from expert testimony. Flickinger v. Toys R Us-Delaware, Inc., 492 F. App'x 217, 224 (3d Cir. 2012). In Flickinger, the Third Circuit held that the district court correctly excluded the term "exclusive control" from expert testimony in a negligence case, as it is a phrase with a legal definition that the jury would ultimately have to decide upon. The Third Circuit noted:

> Here, the District Court allowed testimony to demonstrate that Toys "R" Us was the only entity that filled the bin or maintained it. It also allowed testimony showing that many other people had access to it. This gave the jury the information needed to determine whether Toys "R" Us had "exclusive control." But the Court did not allow experts to provide testimony using the legal phrase, "exclusive control." Similarly, the paragraphs excluded by the Court in the experts' reports offered legal opinions as to "exclusive control," "dangerous condition," "substantial cause," and "negligence." These phrases are legal terms of art that courts commonly hold cannot be the subject of expert testimony. See 4 Jack B. Weinstein & Margaret A. Berger, Weinstein's Federal Evidence, § 704.04[1]

[4] In the Motion, Defendant loosely comments that using the term "trade secret" would "constitute speculative opinion testimony about another individual's state of mind," but does not otherwise directly assert that the expert witnesses will impermissibly testify regarding Defendant's mental state, which is barred under Federal Rule of Evidence 704(b). (Doc. No. 101 at 4.) But as confirmed in the Government's response, "[t]he [G]overnment's expert witnesses in this case will not testify about the defendant's mental state." (Doc. No. 103 at 9.) Therefore, this is not an issue here.

> (Joseph M. McLaughlin, ed., Matthew Bender 2d ed.2011). The District Court therefore did not exceed its discretion in prohibiting this testimony and evidence from reaching the jury.

Flickinger v. Toys R Us-Delaware, Inc., 492 F. App'x 217, 224 (3d Cir. 2012).

District courts in the Third Circuit have followed suit, precluding experts from using legal terms of art that are at issue in the case. See, e.g., Dalgic v. Misericordia Univ., No. 3:16-CV-0443, 2019 WL 2867236, at *13 (M.D. Pa. July 3, 2019) (holding improper for expert to testify using the term "proximate cause"); Perez v. Townsend Eng'g Co., 562 F. Supp. 2d 647, 652 (M.D. Pa. 2007) (precluding expert witness from using legal terms of art, such as in a products liability case that the machine at issue was "defective," "unreasonably dangerous," or was the "proximate cause" of [the plaintiff's] injury, as this could lead the jury to be prejudiced against the defendant). For example, one legal term that district courts commonly exclude from expert testimony is "bad faith." See, e.g., Gallatin Fuels, Inc. v. Westchester Fire Ins. Co., 410 F. Supp. 2d 417, 422 (W.D. Pa. 2006) ("Although expert testimony may be helpful to the fact-finder in a bad faith case, an expert may not give an opinion as to the ultimate legal conclusion that an insurer acted in 'bad faith' in violation of applicable law."); McCrink v. Peoples Benefit Life Ins. Co., No. 04-01068, 2005 WL 730688, at *4 (E.D. Pa. Mar. 29, 2005) ("Of course, the [expert] report's ultimate conclusion that defendant acted in bad faith is inadmissible for embracing a legal conclusion.").

A review of decisions from other Circuit Courts of Appeal demonstrates that courts outside the Third Circuit also have precluded witnesses from using terms with a specialized legal meaning that is more precise than the lay understanding of the term. For example, in Burkhart v. Washington Metropolitan Area Transit Authority, 112 F.3d 1207, 1212 (D.C. Cir. 1997), the District of Columbia Circuit held, in a case under the Americans with Disabilities Act ("ADA"), that an expert's use of the term "as effective," a phrase "lifted directly from the text of the Attorney

General's regulations implementing the ADA," was an inadmissible legal conclusion. Id. at 1213. The D.C. Circuit determined that use of the term "as effective" by the expert witness was impermissible because it was a legal "term of art with a meaning 'separate' and 'distinct' from the vernacular." Id. at 1213 (citing Torres v. County of Oakland, 758 F.2d 147, 151 (6th Cir. 1985)).

In its decision, the D.C. Circuit cited precedent from the Sixth Circuit Court of Appeals, which has the same approach to legal terms on ultimate issues:

> The Sixth Circuit has concluded that "[t]he best resolution of this type of problem is to determine whether the terms used by the witness have a separate, distinct and specialized meaning in the law different from that present in the vernacular. If they do, exclusion is appropriate." Torres, 758 F.2d at 151. Applying this principle in a Title VII suit, the Torres court concluded that it was improper to permit an expert to testify as to whether the plaintiff "had been discriminated against because of her national origin." Id. As the court explained, the expert's actual testimony constituted a legal conclusion for two reasons: it tracked the language of the applicable statute, and the term "discrimination" has a specialized legal meaning that is more precise than the lay understanding of the term. Id. However, the court noted in [dicta] that it would have been permissible for the expert to testify as to whether "national origin 'motivated' the hiring decision." Id. Testimony phrased as such would "address the factual issue of . . . intent without implicating any legal terminology." Id.

Burkhart, 112 F.3d at 1212. Thus, the court emphasized that using the term "motivated" to describe the hiring decision, instead of "because of national origin," was permissible because the latter was taken directly from the language of Title VII and therefore was an impermissible legal conclusion under Rule 704. See id.

The Fourth Circuit has taken a similar approach. In United States v. Barile, 286 F.3d 749, 759 (4th Cir. 2002), the issue was whether a district court correctly precluded an expert from using the term "materiality." Id. at 760. On appeal, the Fourth Circuit held that the district court correctly excluded expert testimony regarding whether a defendant's submission to the Food and Drug Administration contained "materially misleading statements." Id. at 761. The Fourth Circuit held that the phrase "'materially misleading statements' arguably constitutes a legal conclusion because

materiality has a specialized legal meaning, and it is therefore within the district court's discretion to exclude such testimony." Id.

Here, in response to Defendant's argument, the Government cites several cases from other Circuits, arguing that courts regularly allow expert witnesses to use the term "trade secret" in their testimony. See United States v. Shanshan Du, 570 F. App'x 490 (6th Cir. 2014) (affirming conviction for multiple counts relating to theft of trade secrets because the conviction was supported, inter alia, by testimony from multiple witnesses that the specific information in the documents was not in the public domain); Wellogix, Inc. v. Accenture, L.L.P., 716 F.3d 867, 881 (5th Cir. 2013) (holding district court properly allowed a software expert, who identified whether certain evidence was a trade secret, to testify because he was qualified as expert); United States v. Aleynikov, 785 F. Supp. 2d 46, 68 (S.D.N.Y. 2011) (noting Government's expert witness testified as to "the secretive nature of the business" in a case involving the trading industry, which supported conviction under statutory theft of trade secrets).

None of these decisions, however, dealt with a direct challenge to the admissibility of the term "trade secret." Only in Wellogix was the term "trade secret" used by the court when describing an expert witness's testimony. Wellogix, 716 F.3d at 881. In Shanshan Du, the court noted and apparently approved of "testimony from multiple witnesses that the specific information in the documents was not in the public domain." Shanshan Du, 570 F. App'x at 501. And in Aleynikov, the court noted that an expert testified "about the secretive nature of the business" and that "anything would be perceived to be giving away a secret." Aleynikov, 785 F. Supp. 2d at 70. But, the term "trade secret" was not used by the court in describing the expert testimony in the latter two cases. Moreover, nothing in the latter two cases supports the notion that the expert

witnesses used the words "trade secrets" at trial. Taken together, the three cases relied upon by the Government are not persuasive on whether the phrase "trade secret" can be used at trial.

Thus, the Court concludes that the term "trade secret" is a term of art with specialized legal meaning, especially in this case. The term "trade secret," as it applies here, is a term defined statutorily under § 1839, set forth supra, and is an element of the offenses charged in Counts Two, Eight, Nine, Ten, Eleven, and Twelve. The Court will instruct the jury on the definition of "trade secret" under § 1839. Ultimately, the jury must decide whether the Government has proved beyond a reasonable doubt that the documents in issue contain "trade secrets," after carefully applying the facts they find to the law. Thus, the expert witnesses may not testify using the term "trade secret" because doing so "would usurp the District Court's pivotal role in explaining the law to the jury." Berckeley Inv. Grp., Ltd. v. Colkitt, 455 F.3d at 217.

The Government further posits that it is permissible for their witnesses to use the term "trade secret" by arguing that "the term 'trade secret is understood and used in the biopharmaceutical industry.'" (Doc. No. 107 at 6.) While this may be true, the term "ha[s] a separate, distinct and specialized meaning in the law different from that present in the vernacular." Torres, 758 F.2d at 151. Accordingly, exclusion is warranted. And preventing the expert witnesses from using the term "trade secret" will ensure that Defendant Gongda Xue is not unduly prejudiced under Federal Rule of Evidence 403, as the probative value in using the phrase is outweighed by the danger of the jury repeatedly hearing "trade secret" in the Government's proffered expert testimony. FED. R. EVID. 403.

So what can Government witnesses say at trial to prove that the documents in issue contain "trade secrets"? The Government's witnesses may testify, inter alia, that the information at issue was confidential or proprietary information, that the information has economic value in the

industry, and that steps are taken by GSK and other companies to preserve or keep confidential this information. Though Defendant contends that testimony about security measures, or the "reasonable measures" taken "to keep such information secret," would contain legal conclusions under the § 1839 definition of "trade secret," this is unpersuasive. (See Doc. No. 106 at 3–4.) As explained by the Government concerning "reasonable measures:"

> Dr. Villafranca and Dr. Meyers will offer no opinions in this regard. Dr. Baldoni will testify as a fact witness to the measures which GSK took to keep their information secret. For example, he will testify to the physical security of the Upper Merion facility, the computer security [methods] employed by GSK at the time the documents were stolen, and the extensive amount of training which GSK employees received about the need to keep GSK information confidential. Dr. Baldoni will not offer an opinion as to whether all of these measures were "reasonable." The [G]overnment agrees with the [D]efendant that the conclusion whether these measures were "reasonable" is within the province of the jury.

(Doc. No. 107 at 8.) This testimony about security measures is permissible support for the Government's case. It does not instruct that the measures were "reasonable" under the statute, nor does it intrude upon the Court's authority to explain the law to the jury.

Therefore, while the Government's witnesses may testify regarding customs and practices in the biopharmaceutical industry, the term "trade secret" may not be used by them.[5] Additionally, the witnesses may not use the term "secret." As an alternative to "trade secret" or "secret," the witnesses may testify that the information was "confidential" or "proprietary," about any steps taken to protect the confidentiality of the information, and about industry customs and practices. The witnesses may also use synonyms for the words "trade" and "secret." During trial, the Court will give a jury instruction that it is for the jury to decide whether or not the information at issue in the case is a "trade secret" under § 1839, as "trade secret" is a term with a specialized legal

[5] It should be noted, however, that if a witness testifying on behalf of Defendant opens the door by using the term "trade secret," the Government's witnesses will be permitted to testify using the term.

meaning. In this regard, if the parties wish to provide the Court with a proposed instruction, they may file the requested jury instruction of record for the Court's consideration.

V. CONCLUSION

For the foregoing reasons, Defendant's Motion in Limine to Exclude Expert Testimony (Doc. No. 101) will be granted in part and denied in part. An appropriate order follows.